



OPERATIONAL RISK MANAGEMENT

“Avoid the distractions of debates on political correctness and focus on the soldiers’ mission, one that remains fixed, determined, inviolable. It is to win our wars.”

General Douglas
MacArthur April, 1962

“We’re out of the do more
with less business. We can
do less with less or we can
do more with more, but we
will no longer do more with
less.”

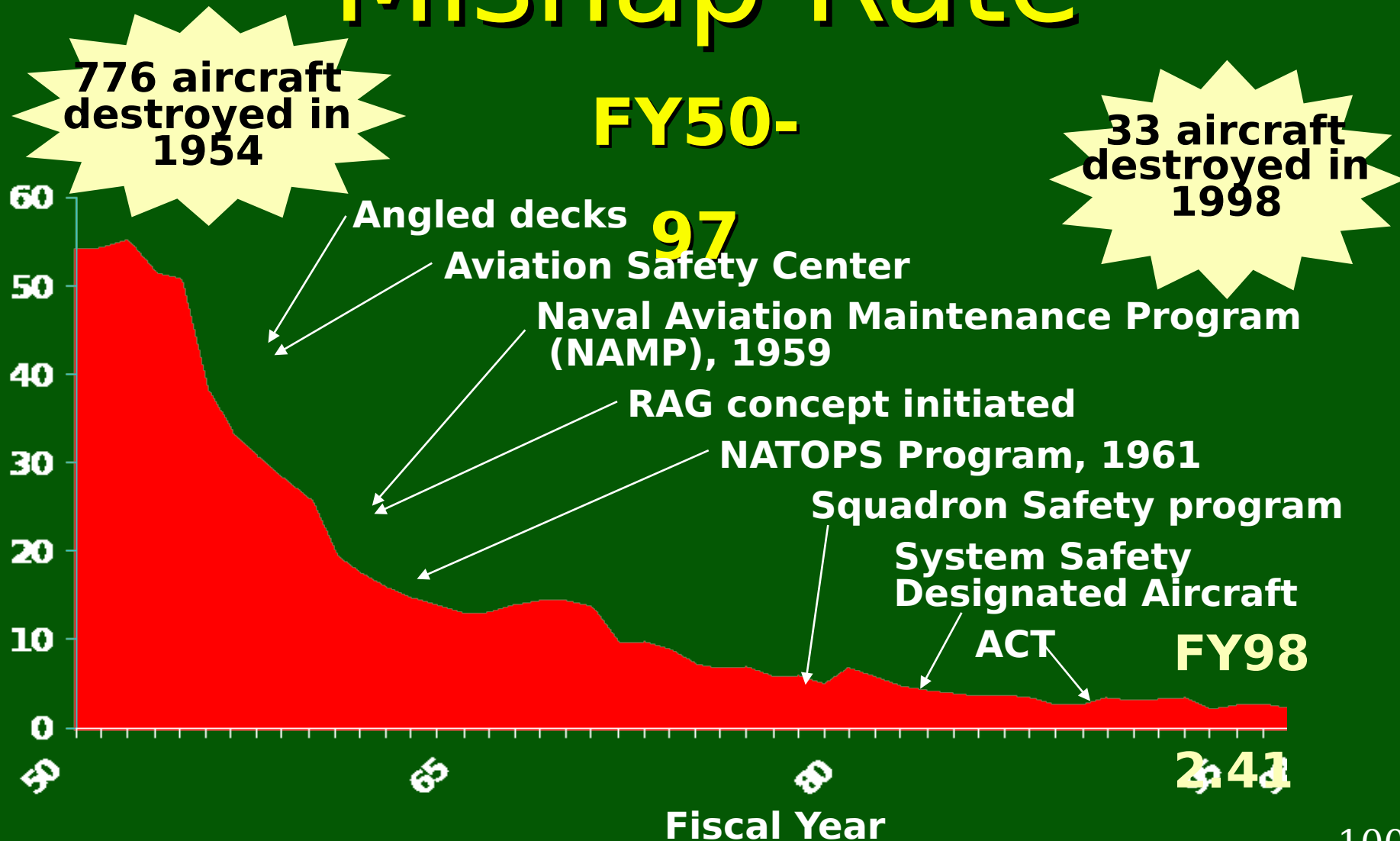
Admiral Jay

Johnson
College

Naval War
June,

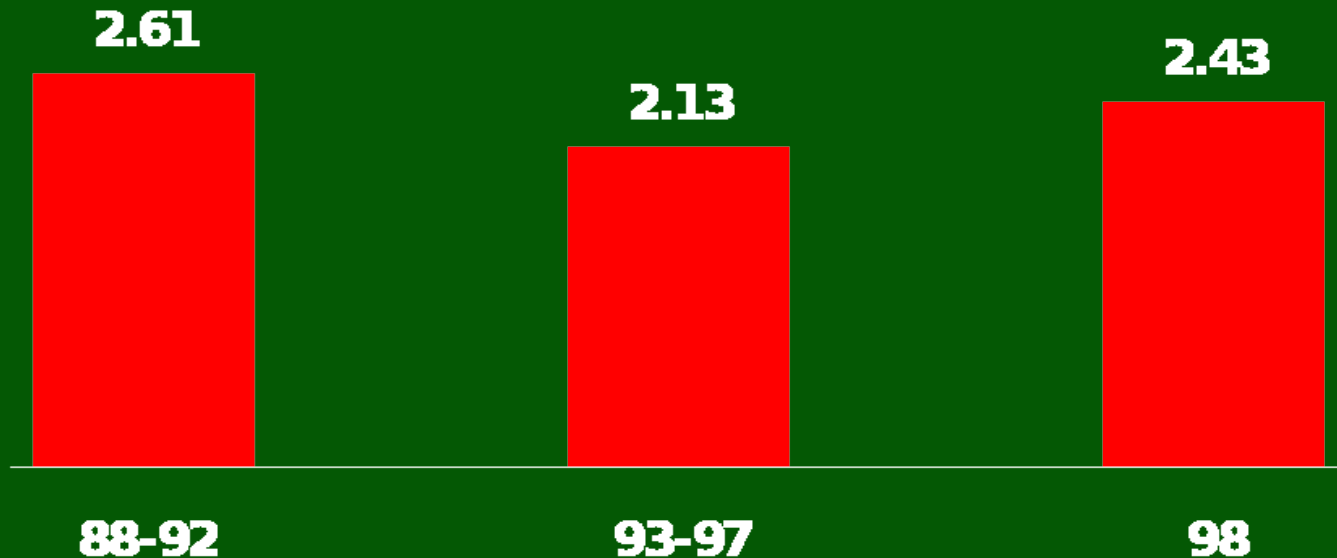
1997

Naval Aviation Mishap Rate



Navy & Marine Corps Class A Flight Mishaps

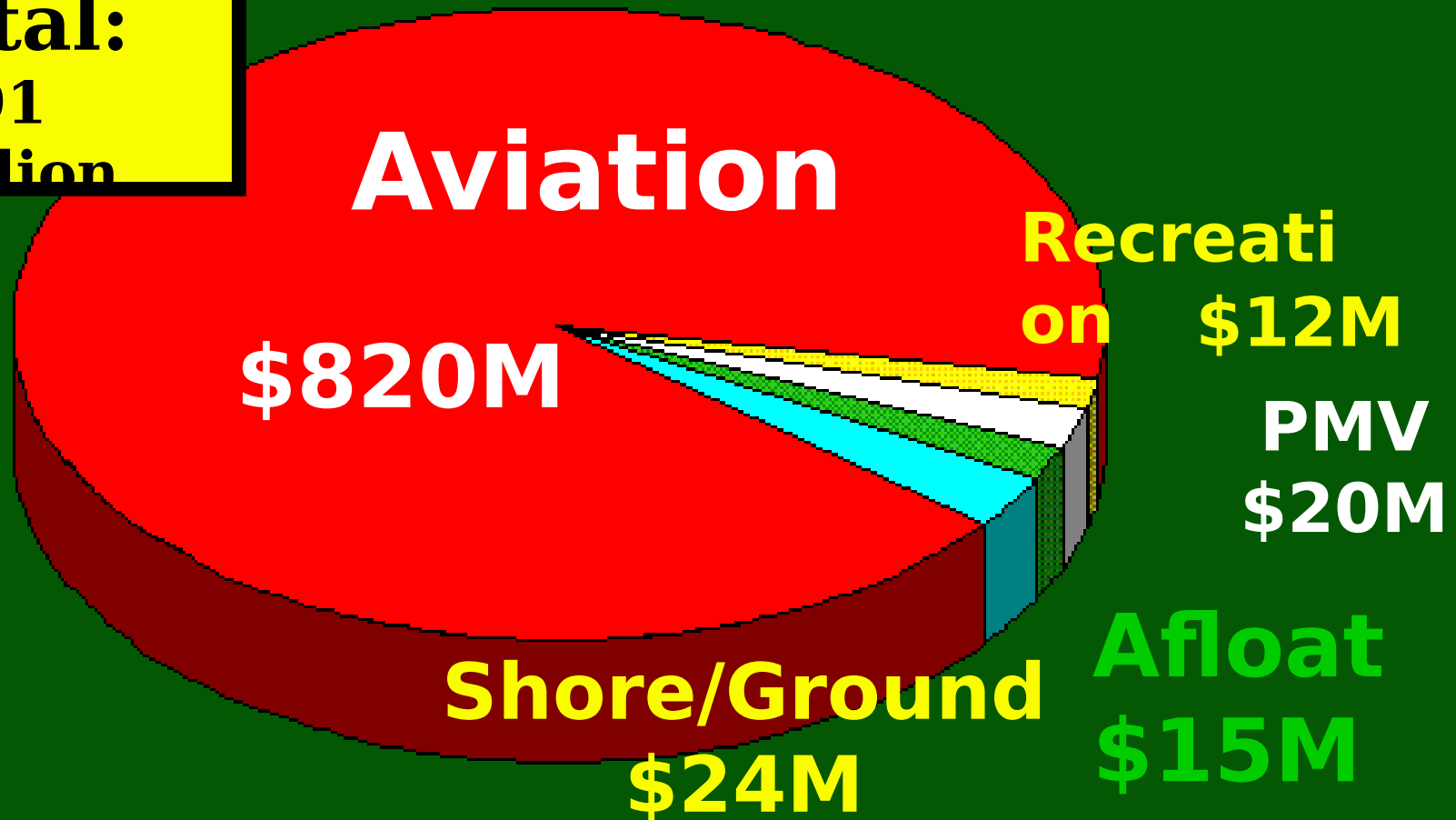
**5 year trends indicate a
plateau - but FY 98 rate
highest since FY 93**



Cost of Mishaps

Navy and Marine Corps,
FY98

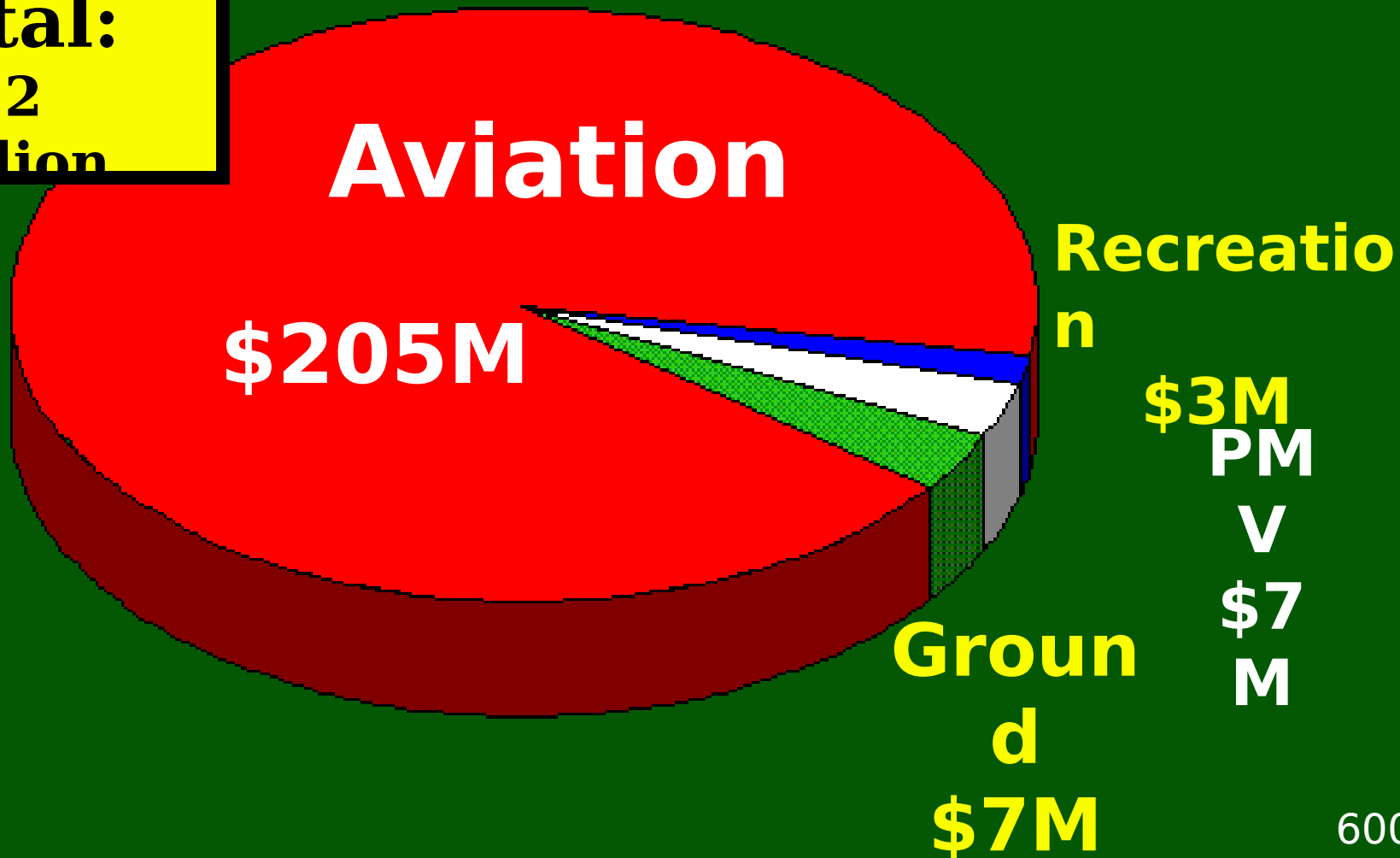
Total:
\$891
Million



Cost of Mishaps

Marine Corps, FY98

Total:
\$222
Million



All Services, Class A Flight Mishap Rates

Marines have highest rate

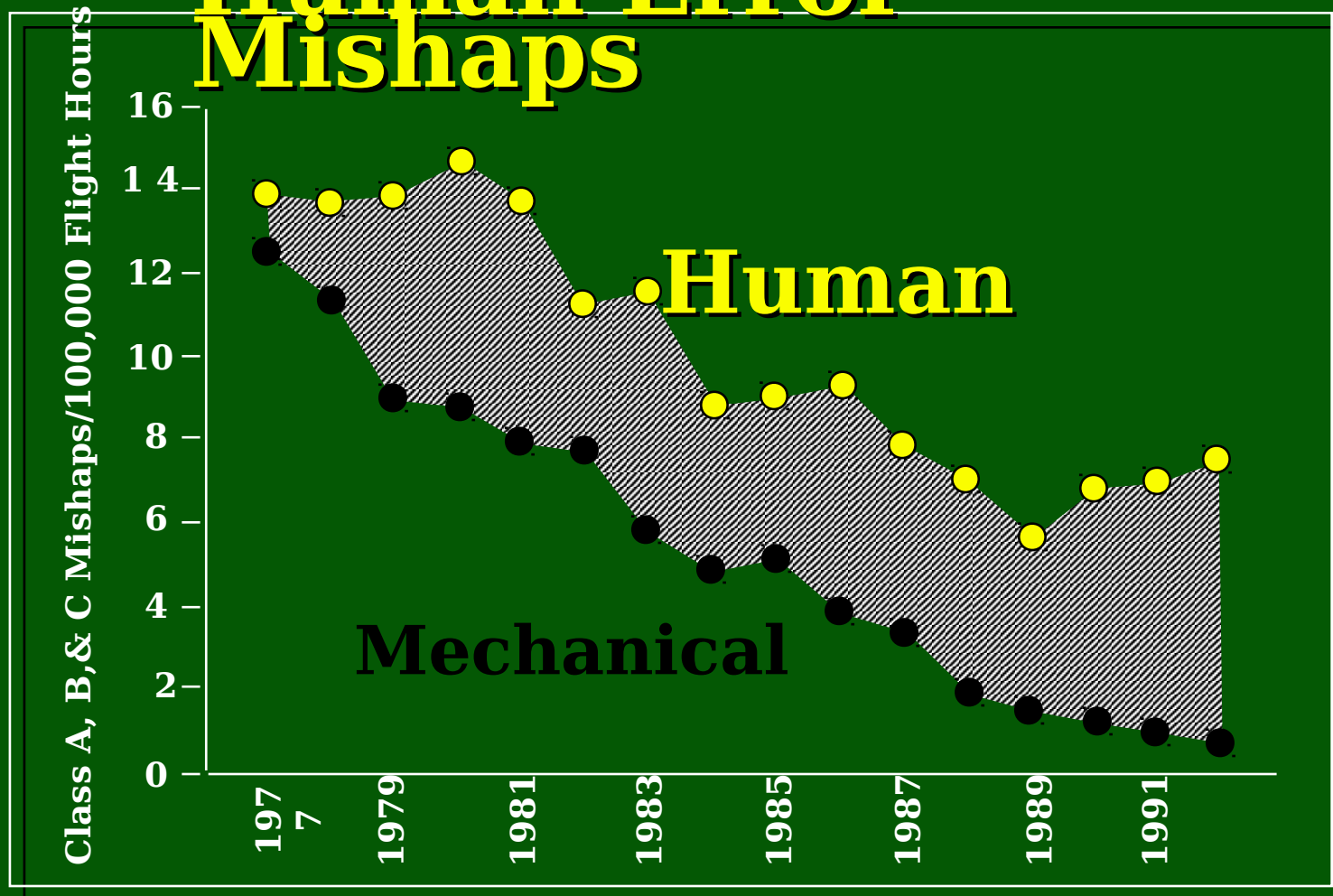


Human Error A Major Problem

4 of every 5 Navy Service
Class A flight
mishaps involve human
error

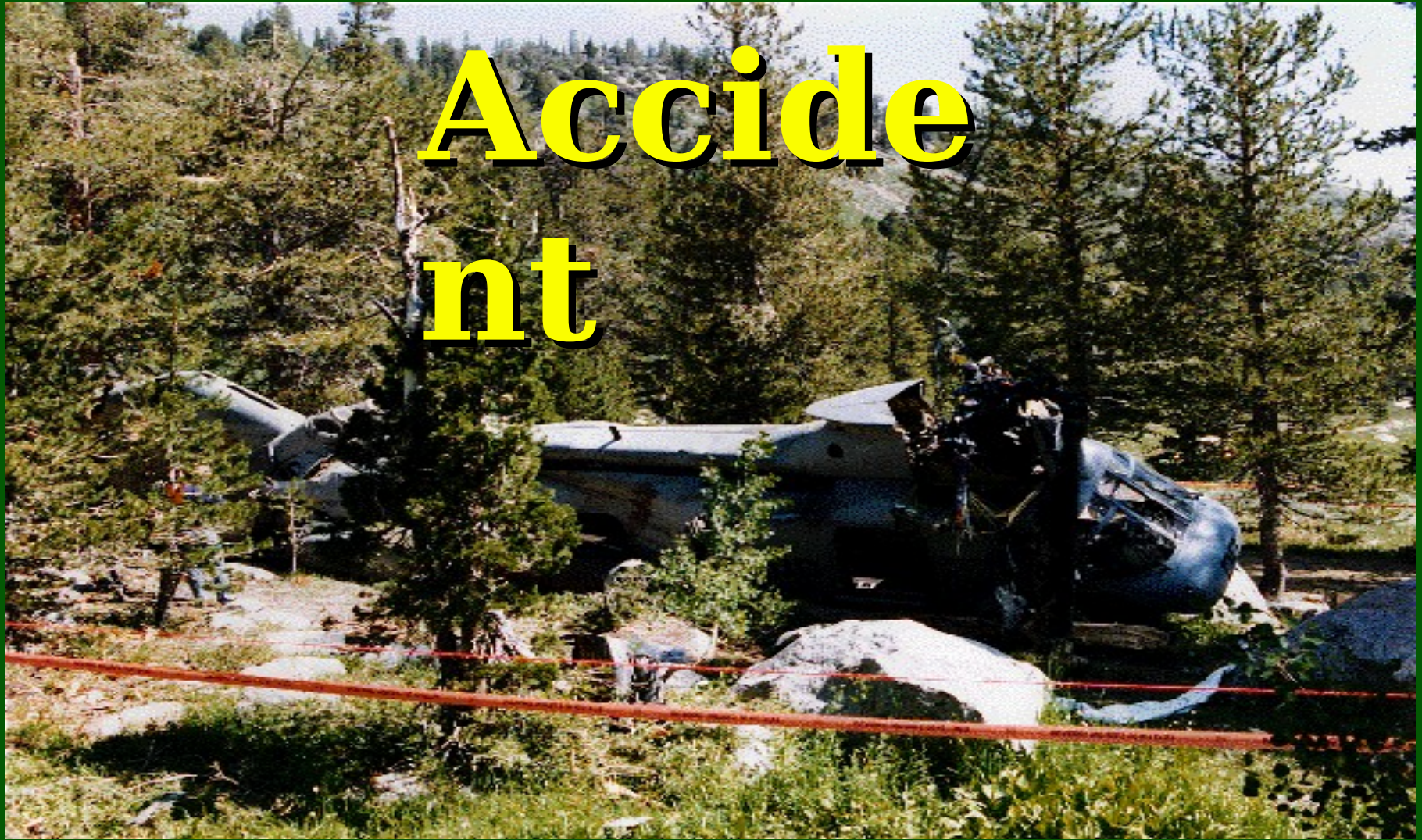


No Steady Decrease in Human Error Mishaps



All Navy-Marine Corps Mishaps, CY 1977-92

Accident



The unplanned result of a behavior that is likely part of an organization's culture

Organizational Culture

“The way we do things here”

- Fundamental building blocks
- Group values and standards
- Medium for growth
- Shaped by leadership

Drives key decisions



Desired Cultural Attitudes

- **Accountability**
- **Integrity**
- **Focus on standards**
- **Continuous and open communication**
- **Intolerance for non-compliance**
- **Consistent decisions**

ORM

Process ...

NOT Program



Operational Risk Management

- > A Decision Making Tool
- > Increases Ability to Make

Informed Decisions

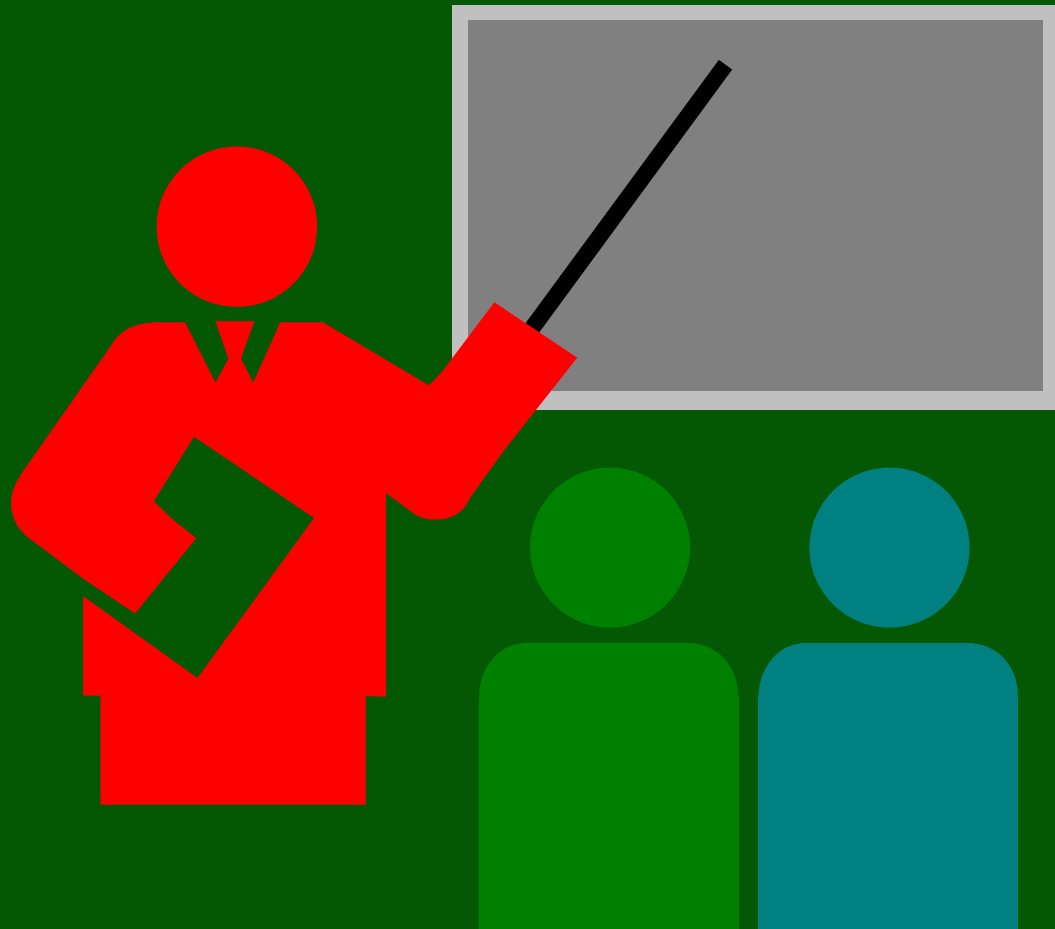
- > Reduces Risks to
Acceptable Levels

Operational Risk Management

Goal:

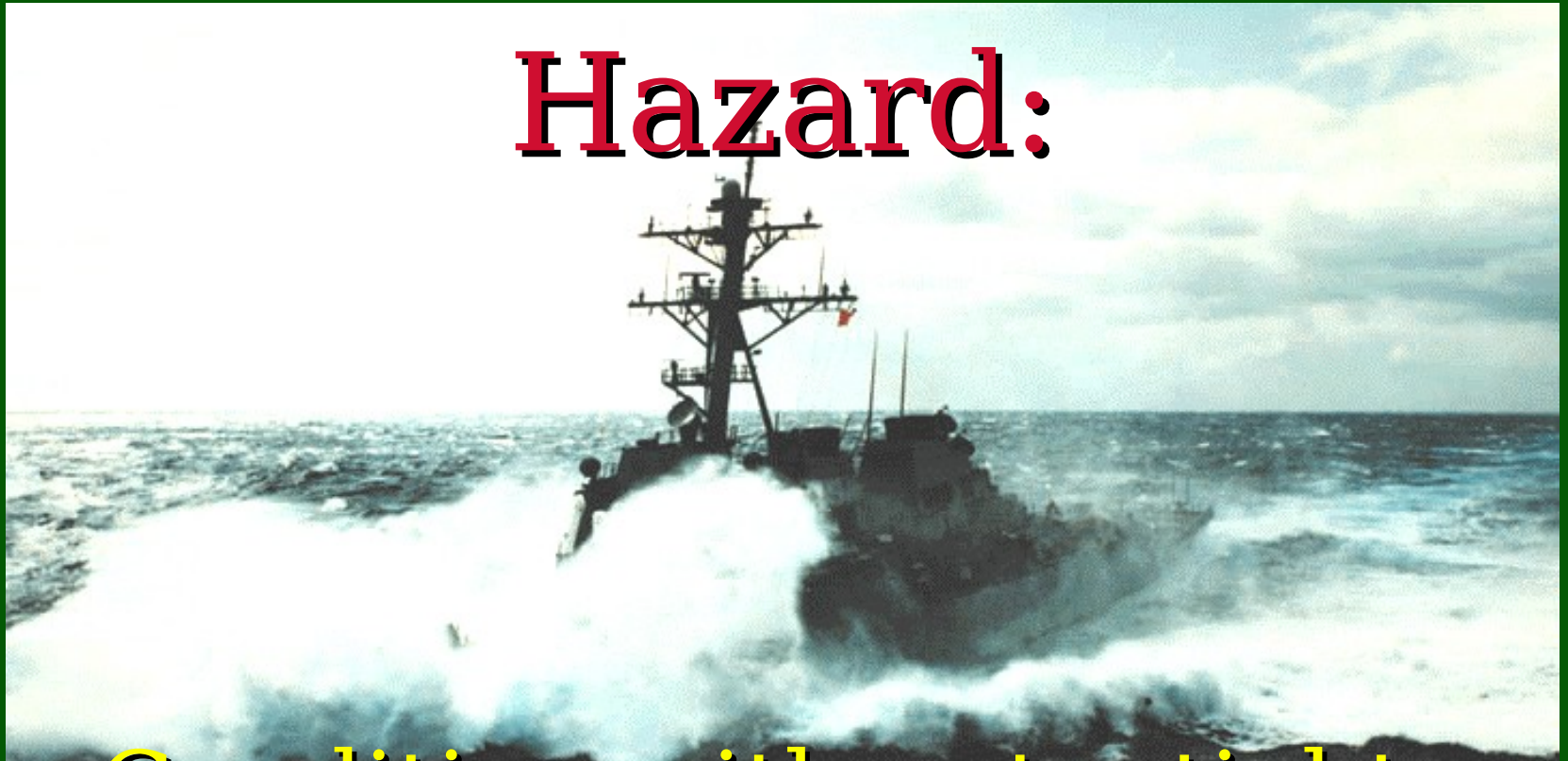
To optimize operational capability and readiness by managing risk to accomplish the mission with minimal loss.

ORM Terms



ORM Terms

Hazard:

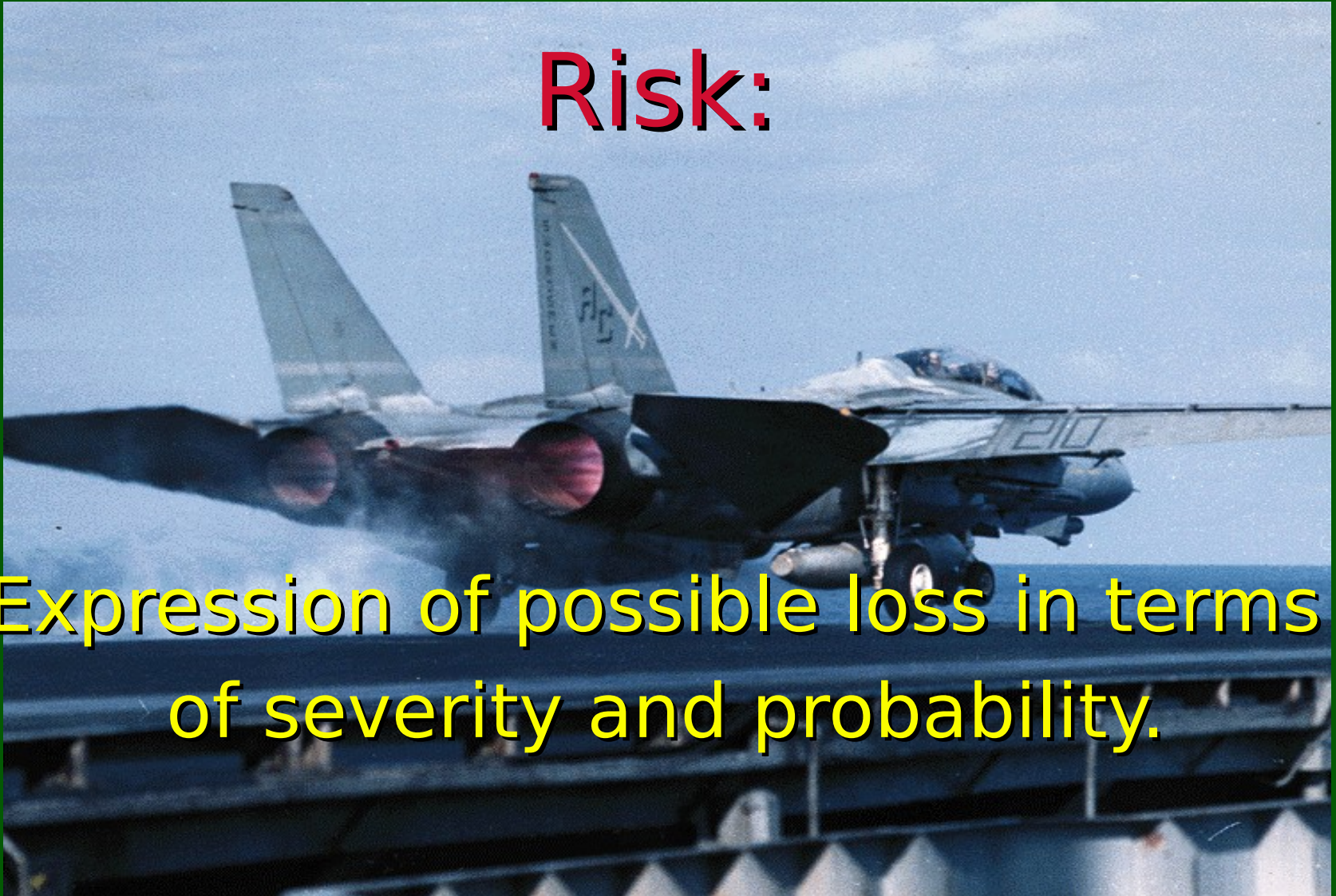


Condition with potential to cause personal injury, death, property damage, or mission degradation

ORM Terms

Risk:

Expression of possible loss in terms of severity and probability.



ORM Terms

Severity:

The worst
consequence which can occur
as a result of a hazard.

ORM Terms

Probability:

likelihood that a hazard will result in mishap or loss.

Hazard

Bad Weather

Flock of Birds

Walking on top
of Slippery AC

Risk

High Probability
Flight Ops Cnx

Moderate Chance
of Engine FOD

Some Chance of
Fall Producing
Severe Injury

ORM Terms

Risk Assessment:

The process of detecting hazards and assessing associated risks.

ORM Terms

Control:

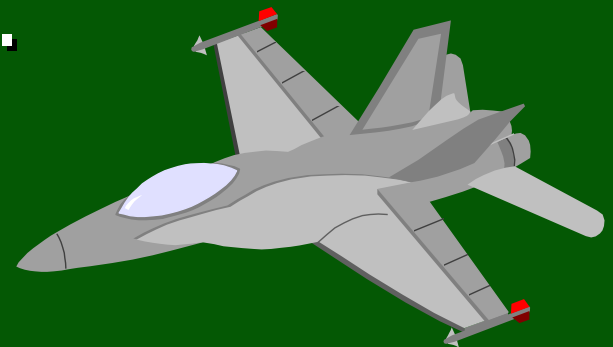
A method for reducing risk for an identified hazard by lowering the probability of occurrence or decreasing potential severity or both.



ORM Terms

Operational Risk Management

The process of dealing with risk associated with military operations, which includes risk assessment, risk decision making, and implementation of effective risk controls.



Operational Risk Management Process

1. Identify Hazards
2. Assess Hazards
3. Make Risk Decisions
4. Implement Controls
5. Supervise

Causes of Risk

- * Change - The “Mother” of Risk
 - * Resource Constraints
 - * New Technology
- * Complexity
- * Stress

Risk

(Cont.)

- * Human Nature
- * High Energy Levels
- * Societal Constraints
- * Environmental Influences
- * Speed/Tempo of Operation

Four ORM Principles

1. Accept risk when benefits outweigh the cost.
2. Accept no unnecessary risk.
3. Anticipate and manage risk by planning.
4. Make risk decisions at the right level.

ORM vs. Traditional Approach

Systematic

Random, Individual-D

Proactive

Reactive

Integrates All Types
of Risk Into Plan

Safety As After-thought Once
Plan is Done

Common
Process/Terms

Non-standard

Conscious Decision
Based on Risk vs. Benefit

“Can Do” Regardless of Risk

The Benefits of ORN

- > Reduction in Mishaps**

- > Improved
Mission Effectiveness**

Operational Risk Management

Levels of Application

- 1. Time-critical - On the run consideration of the 5 Steps**
- 2. Deliberate - Application of the complete 5-Step Process**
- 3. In-depth - Complete 5-Step Process with Detailed Analysis**

ORM Implementation Concept

- Naval Aviation Leads The Way!
- Leverage the Army's Investment in ORM
- PHASE I: JUMP START for Operational Units
- PHASE II: CNATRA/FRS/FWS Pipeline Training
- PHASE III: CNET Pipeline Training

ORM - Implementation Plan

- PHASE I: Jump Start for Operations
 - Naval Safety Center “Train the Trainer” Course
 - Senior Leader Training
 - Squadron Workshop Training

ORM - Implementation Plan

- PHASE II: Long Term CNATRA - FRS - Pipeline Training
 - VT/HT Flight Instructor (user/adv)
 - Student API (indoc) and VT/HT (user)
 - FRS (user)
 - FWS/Type Wing/MAW/MAG (adv)
 - CO/XO ASC course (leader)
 - Follow-on Train the Trainer School (adv/TtT)

Why do we need ORM

- USMC & All other services decreasing in size
- Number of missions increasing
- Can not afford to sustain the losses we historically suffer during training

ORM IMPLEMENTATION STATUS

**DOCTRINE: Naval doctrinal Pub 1,3 &
5 FMFM - 1**

**POLICY: MCO P3500.27/OPNAVINST
3500.39**

TRAINING:

- Naval Safety Center
- Naval Post Graduate School
- MAWTS - 1

ORM UPDATE

- 5 “Train the Trainers” Courses @ **NSC**
- 39 USMC Aviators attended TTT Course
- 80% of USMC Squadrons

ORM: WHERE ARE THE TRAINERS?

- 1st MAW: 5
- 2nd MAW: 12
- 3rd MAW: 10
- 4th MAW: 8
 - HMX-1, MAWTS-1, V-22 Test & Eval, SD

**Some trainers have already
PCSed**

SQUADRON ASSISTANCE RISK ASSESSMENT “SARA”

- MAGs 11, 13 & 14 have SARA prototype
- All MAWs to receive SARA
- Requires hardware & training

Your Next Mishap . . . Who, Not



- ★ Self-discipline
- ★ Leadership
- ★ Training
- ★ Standards
- ★ Support

“Life is tough, but it’s
tougher if you’re
stupid”

Sergeant John M.
Stryker, USMC, in
“The Sands of
Iwo Jima”

